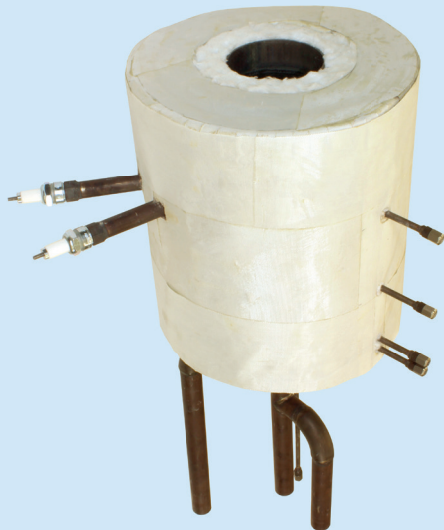
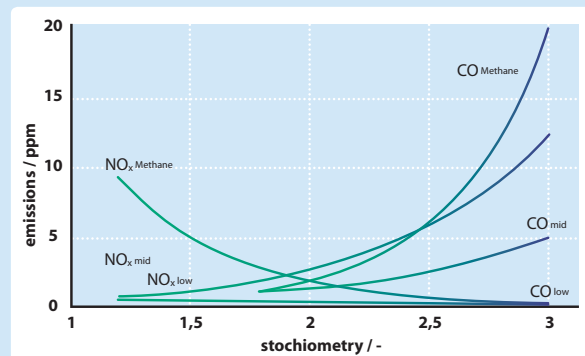


All Gas Porous Media Burner



complete burner incl. ignition, premixing and insulation



measured emissions during burning of low, medium and high calorific gases

APPLICATION

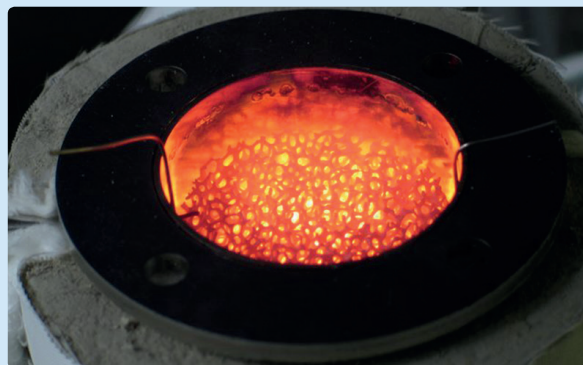
- burning of SOFC anode off gas
- burning of other low calorific fuels
- burning of natural gas for different processes

OPTIONAL

- blowers, ignition and flame monitoring equipment
- integration of heat exchangers for water heating, gas preheating or steam generation
- integration of a jet pump for low pressure drop
- geometry adjustment according to customer demand
- high temperature thermal insulation
- other sizes on request

KEY FEATURES

- burning of low and high calorific gases, from 3 MJ/m³ to 110 MJ/m³
- admixing of auxiliary fuel for calorific values below 3 MJ/m³
- high power density up to 10 MW/m³
- wide modulation range up to 1:10
- very low CO and NO_x emissions < 10 ppm
- robust operation even during fluctuations of gas flow or gas composition
- temperature control by N type thermocouple



burning chamber

SUMMARY

type (examples)	EBZ-PMB-2	EBZ-PMB-5	EBZ-PMB-8
material	porous media body: SiSiC		
power range	0.3 - 2 kW	0.5 - 5 kW	0.8 - 8 kW
maximal operation temperature	950 °C	1100 °C	1100 °C
pressure loss	12 mbar	10 mbar	10 mbar
diameter / height	Ø 130 mm × 180 mm	Ø 170 mm × 230 mm	Ø 200 mm × 260 mm
instrumentation	burning chamber temperature (N type thermocouple) flame barrier temperature (N type thermocouple) mixing chamber temperature (N type thermocouple)		
ignition	ignition electrodes or glow plug		

FUEL GAS

CO [Vol%]		CO₂ [Vol%]	
H₂ [Vol%]		N₂ [Vol%]	
CH₄ [Vol%]		H₂O [Vol%]	
temperature [°C]		maximal pressure loss [mbar]	
min. flow rate [I_{N,STP}/min]			
max. flow rate [I_{N,STP}/min]		other	

OTHER / ADDITIONAL FLUID DATA

combustion air temperature [°C]:	max. exhaust gas temperature [°C]:
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INTEGRATION OF HEAT EXCHANGER

water <input type="checkbox"/>	no heat exchanger <input type="checkbox"/>
air <input type="checkbox"/>	evaporator <input type="checkbox"/>
other gases <input type="checkbox"/>	reformer <input type="checkbox"/>

ADDITIONAL INFORMATION (maximum available space, additional operating points, ...)